

REMARKS

The final Office Action dated May 15, 2008 and the Advisory Action dated August 1, 2008 have been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 1-36 and 38-45 are now pending in this application. Claim 45 is newly added. Applicants submit that no new matter has been added to the application. No additional fee is due for newly added Claim 45. Claims 1-36 and 38-44 stand rejected.

The rejection of Claims 1-12 and 28-32 under 35 U.S.C. § 103(a) as being unpatentable over Curtis (U.S. Patent No. 6,668,279) in view of Wischinski (U.S. Patent No. 7,130,701) is respectfully traversed.

Curtis describes a web server (202) that includes an in-kernel cache (204) that is managed by a data transport module (206). The web server (202) receives HTTP requests from multiple clients (100) and (102). The data transport module (206) places an object containing the HTTP request in an upcall thread queue (214). An upcall thread (216) then obtains the HTTP request from the upcall thread queue (214) and invokes a method implemented by the HTTP daemon (210). The HTTP daemon (210) returns an HTTP response and/or directives to control information that is stored in the in-kernel cache (204) or control the flow of information that is transmitted to the clients (100) or (102). This information is sent to the data transport module (206) via a downcall door (220). Curtis also describes multiple clients (100) and (102) having access to files via a single web server (104). Notably, Curtis does not describe or suggest an ACM, a programmable logic controller (PLC), a computer numeric control (CNC), or a motion control product. Furthermore, Curtis does not describe or suggest a web and file transfer system configured to use form data from an HTTP request to transfer ACM data to an ACM CPU to control operation of the ACM.

Wischinski describes a technical support system (TSS) (11) used to provide a vendor with information on what industrial control system (ICS) equipment an end user is currently using. The vendor may use this information to provide suggestions on component upgrades

to the end user. The TSS (11) interrogates the ICS connected to the Internet to detect equipment included in the ICS. The TSS (11) and corresponding equipment, for example, control automation devices (22 and 26), communicate via the Internet using a separate server or a web server (21) embedded within the TSS (11). A third party web portal (15) allows access by the TSS (11) to a sales database (16), which stores sales information about the configuration of the ICS. A vendor may also use the TSS (11) to remotely perform system diagnostics. Notably, Wischinski does not describe or suggest using form data from an HTTP request to transfer ACM data to an ACM CPU to control operation of the ACM.

Claim 1 recites a web-enabled automation control module (ACM) that includes “an ACM central processing unit (CPU); and a web and file transfer system electrically connected to said ACM CPU, said web and file transfer system embedded within said ACM . . . said web and file transfer system configured to: process hypertext transfer protocol (HTTP) requests from a network; and use form data from the HTTP requests to transfer ACM data to said ACM CPU to control operation of said ACM, wherein said ACM is one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product.”

Neither Curtis nor Wischinski, considered alone or in combination, describes or suggests a web-enabled ACM as recited in Claim 1. More specifically, neither Curtis nor Wischinski, considered alone or in combination, describes or suggests a web and file transfer system configured to: (1) process HTTP requests from a network; and (2) use form data from the HTTP request to transfer ACM data to the ACM CPU to control operation of the ACM. Rather, in contrast to the recitations of Claim 1, Curtis describes a web server that includes a transport module for routing HTTP requests between a client and an HTTP daemon, and Wischinski describes a TSS that interrogates an ICS to determine components currently included in the ICS and may also remotely perform system diagnostics of the ICS. Applicants respectfully submit that a system for routing HTTP requests within a web server, and a system for determining currently used components of an ICS for use in sales, do not describe or suggest an ACM having an embedded web and file transfer system that uses form data from an HTTP request to transfer ACM data to the ACM CPU to *control operation of*

the ACM. Accordingly, for at least the reasons stated above, Claim 1 is submitted to be patentable over Curtis in view of Wischinski.

Claims 2-12 depend, directly or indirectly, from independent Claim 1. When the recitations of Claims 2-12 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2-12 likewise are patentable over Curtis in view of Wischinski.

Claim 28 recites a method for management and control of an automation control module (ACM) including an ACM central processing unit (CPU), wherein the ACM is one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product. The method includes “embedding a web and file transfer system within the ACM including electrically connecting the web and file transfer system to the ACM CPU, . . . electrically connecting the web and file transfer system to a network; processing hypertext transfer protocol (HTTP) requests from the network using the web and file transfer system; and using form data from the HTTP requests to the ACM CPU to control operation of the ACM.”

Neither Curtis nor Wischinski, considered alone or in combination, describes or suggests a method for management and control of an ACM as recited in Claim 28. More specifically, neither Curtis nor Wischinski, considered alone or in combination, describes or suggests embedding a web and file transfer system within the ACM, processing HTTP requests from the network using the web and file transfer system, and using form data from the HTTP requests to the ACM CPU to control operation of the ACM. Rather, in contrast to the recitations of Claim 28, Curtis describes a method for transporting data within a web server that includes a transport module for routing HTTP requests between a client and an HTTP daemon, and Wischinski describes a method of interrogating an ICS to determine components currently included in the ICS and remotely performing system diagnostics of the ICS. Applicants respectfully submit that a method for routing HTTP requests within a web server, and a method for determining currently used components of an ICS for use in sales, do not describe or suggest an a method for management *and control* of an ACM that includes using form data from an HTTP request to the ACM CPU to *control operation of the ACM*.

Accordingly, for at least the reasons set forth above, Claim 28 is submitted to be patentable over Curtis in view of Wischinski.

Claims 29-32 depend, directly or indirectly, from independent Claim 28. When the recitations of Claims 29-32 are considered in combination with the recitations of Claim 28, Applicants submit that dependent Claims 29-32 likewise are patentable over Curtis in view of Wischinski.

Applicants respectfully traverse the assertions made multiple times throughout the instant Office Action that the claim element “an ACM central processing unit (CPU)” is described in Curtis because Curtis describes a CPU used in HTTP transport acceleration (column 6, lines 1-10 in Curtis). Applicants respectfully submit that although the ACM recited in Claim 28 includes a CPU, not every device (or computer system as described in Curtis) that includes a CPU is an ACM. Applicants also respectfully traverse the assertion that “[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to modify Curtis in view of Wischinski to use an ACM that is one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product. One would be motivated to do so because it allows for the automation of a factory.” Applicants respectfully submit that it would not have been obvious to one of ordinary skill in the art at the time of the invention to combine a reference describing routing of HTTP requests within a web server with a reference describing determining currently used components in an ICS. Moreover, even when the references are combined, they still do not describe controlling operation of an ACM.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 1-12 and 28-32 be withdrawn.

The rejection of Claims 13-27 and 33-44 under 35 U.S.C. § 103(a) as being unpatentable over Curtis in view of Pettersen (U.S. Patent No. 6,826,594) and further in view of Wischinski is respectfully traversed.

Curtis and Wischinski are described above. Pettersen describes a method for inserting dynamic content into a web page. A web page owner defines one or more zones of a web page (793) as remotely managed, and then connects the web page (793) to a content serving web site (780) in order to manage the zones by identifying dynamic content to be inserted in the zones. By way of an affiliate browser (792), a user at an affiliated web site (790) accesses a zone content database (785) to alter a file (787) associated with a tag ID (786) owned by the affiliate. The affiliated web site (790) and the content serving web site (780) each has a web server (791) and (781). In response to a request from a user system browser (762), the content serving web site (780) looks up the file (787) associated with the dynamic content from the dynamic content database (785), using the tag ID (786) as a key, and sends the file (787) to a user system (760).

Claim 13 recites an automation control module (ACM) system that includes “an ACM comprising one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product; a network; a web-enabled computer electrically connected to said network; and a web and file transfer subsystem electrically connected to said ACM and said network, said web and file transfer subsystem comprising a web server, a file transfer server, and a database, said web and file transfer subsystem configured to: store at least one user-defined web page file in said database; process hypertext transfer protocol (HTTP) requests from said network; and use form data from the HTTP requests to transfer ACM data to said ACM to control operation of said ACM.”

None of Curtis, Pettersen, and Wischinski, considered alone or in combination, describes or suggests an ACM system as recited in Claim 13. More specifically, none of Curtis, Pettersen, and Wischinski, considered alone or in combination, describes or suggests a web and file transfer subsystem configured to store at least one user-defined web page file, process HTTP requests from the network, and use form data from the HTTP requests to transfer ACM data to the ACM to control operation of the ACM. Rather, in contrast to the recitations of Claim 13, Curtis describes a web server that includes a transport module for routing HTTP requests between a client and an HTTP daemon, Pettersen describes a system for inserting dynamic content from a web server into a designated portion of a web page, and

Wischinski describes a TSS that interrogates an ICS to determine components currently included in the ICS and may also remotely perform system diagnostics of the ICS. Applicants respectfully submit that a system for routing HTTP requests within a web server, a system for updating content included in a web page using a web server and a computer terminal, and a system for determining currently used components of an ICS for use in sales, do not describe or suggest an ACM having an embedded web and file transfer system that uses form data from an HTTP request to transfer ACM data to the ACM CPU to *control operation of the ACM*. Accordingly, for at least the reasons stated above, Claim 13 is submitted to be patentable over Curtis in view of Pettersen, and further in view of Wischinski.

Claims 14-27 depend, directly or indirectly, from independent Claim 13. When the recitations of Claims 14-27 are considered in combination with the recitations of Claim 13, Applicants submit that dependent Claims 14-27 likewise are patentable over Curtis in view of Pettersen and further in view of Wischinski.

Claim 28 is recited above.

None of Curtis, Pettersen, and Wischinski, considered alone or in combination, describes or suggests a method for management and control of an ACM as recited in Claim 28. More specifically, none of Curtis, Pettersen, and Wischinski, considered alone or in combination, describes or suggests embedding a web and file transfer system within the ACM, processing HTTP requests from the network using the web and file transfer system, and using form data from the HTTP requests to the ACM CPU to control operation of the ACM. Rather, in contrast to the recitations of Claim 28, Curtis describes a method for transporting data within a web server that includes a transport module for routing HTTP requests between a client and an HTTP daemon, Pettersen describes a method for inserting dynamic content from a web server into a designated portion of a web page, and Wischinski describes a method of interrogating an ICS to determine components currently included in the ICS and remotely performing system diagnostics of the ICS. Applicants respectfully submit that a method for routing HTTP requests within a web server, a method for updating content included in a web page using a web server and a computer terminal, and a method for

determining currently used components of an ICS for use in sales, do not describe or suggest an a method for management and control of an ACM that includes using form data from an HTTP request to the ACM CPU to *control operation of the ACM*. Accordingly, for at least the reasons set forth above, Claim 28 is submitted to be patentable over Curtis in view of Pettersen, and further in view of Wischinski. Accordingly, for at least the reasons set forth above, Claim 28 is submitted to be patentable over Curtis in view of Pettersen and further in view of Wischinski.

Claims 33-35 depend, directly or indirectly, from independent Claim 28. When the recitations of Claims 33-35 are considered in combination with the recitations of Claim 28, Applicants submit that dependent Claims 33-35 likewise are patentable over Curtis in view of Pettersen and further in view of Wischinski.

Claim 36 recites a method for management and control of an automation control module (ACM) using an ACM system. The ACM system includes a network and a web-enabled computer electrically connected to the ACM. The ACM is one of a programmable logic controller (PLC), a computer numeric control (CNC), and a motion control product. The method includes “embedding a web and file transfer subsystem within the ACM including electrically connecting the web and file transfer subsystem to the ACM and the network, the web and file transfer subsystem includes a web server, a file transfer server, and a database; storing at least one user-defined web page file in the database; processing hypertext transfer protocol (HTTP) requests from the network; and using form data from the HTTP requests to transfer ACM data to the ACM to control operation of the ACM.”

None of Curtis, Pettersen, and Wischinski, considered alone or in combination, describes or suggests a method for management and control of an ACM as recited in Claim 36. More specifically, none of Curtis, Pettersen, and Wischinski, considered alone or in combination, describes or suggests embedding a web and file transfer system within the ACM, storing at least one user-defined web page file in the database, processing HTTP requests from the network, and using form data from the HTTP request to transfer ACM data to the ACM to control operation of the ACM. Rather, and in contrast to the recitations of Claim 36, Curtis describes a method for transporting data within a web server that includes a

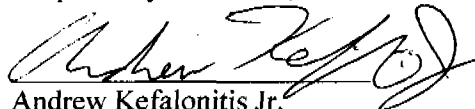
transport module for routing HTTP requests between a client and an HTTP daemon, Pettersen describes a method for inserting dynamic content from a web server into a designated portion of a web page, and Wischinski describes a method of interrogating an ICS to determine components currently included in the ICS and remotely performing system diagnostics of the ICS. Applicants respectfully submit that a method for routing HTTP requests within a web server, a method for updating content included in a web page using a web server and a computer terminal, and a method for determining currently used components of an ICS for use in sales, do not describe or suggest a method for management and control of an ACM that includes using form data from an HTTP request to the ACM CPU to *control operation of the ACM*. Accordingly, for at least the reasons set forth above, Claim 36 is submitted to be patentable over Curtis in view of Pettersen, and further in view of Wischinski. Accordingly, for at least the reasons set forth above, Claim 36 is submitted to be patentable over Curtis in view of Pettersen and further in view of Wischinski.

Claims 37-44 depend from independent Claim 36. When the recitations of Claims 37-44 are considered in combination with the recitations of Claim 36, Applicants submit that dependent Claims 37-44 likewise are patentable over Curtis in view of Pettersen and further in view of Wischinski.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 13-27 and 33-44 be withdrawn.

In view of the foregoing amendment and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully submitted,



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